

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Sheet 1 of 3

Complete if Known

Control Number	09/818,466
Filing Date	March 27, 2001
First Named Inventor	Lee, Sean
Art Unit	1615
Examiner Name	Sheikh, H.
Attorney Docket Number	99866-9

U.S. PATENT DOCUMENTS

Examiner Initials *	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number - Kind Code ² (if known)			
ns	1	3,922,155	11-25-75	Broemer et al.	
	2	3,981,736	09-21-76	Broemer et al.	
	3	4,120,730	10-17-78	Trojer et al.	
	4	4,171,544	10-23-79	Hench et al.	
	5	4,189,325	02-19-80	Barrett et al.	
	6	4,234,972	11-25-80	Hench et al.	
	7	4,366,253	12-28-82	Yagi	
	8	4,478,904	10-23-84	Ducheyne et al.	
	9	4,560,666	12-24-85	Yoshida et al.	
	10	4,604,097	08-05-86	Graves et al.	
	11	4,652,534	03-24-87	Kasuga	
	12	4,698,318	10-06-87	Vogel et al.	
	13	4,737,411	04-12-88	Graves et al.	
	14	4,775,646	10-04-88	Hench et al.	
	15	4,777,041	10-11-88	Mercado	
	16	4,783,429	11-08-88	Shibuya et al.	
	17	4,786,555	11-22-88	Howard	
	18	4,851,046	07-25-89	Low et al.	
	19	4,871,384	10-03-89	Kasuga	
	20	4,965,071	10-23-90	Kawan	
	21	4,994,414	02-19-91	Yamamoto et al.	
	22	5,034,216	07-23-91	Barone et al.	
	23	5,074,916	12-24-91	Hench et al.	
	24	5,380,360	01-10-95	Noguchi et al.	
	25	5,614,489	03-25-97	Mohammadi et al.	
	26	5,658,332	08-19-97	Ducheyne et al.	
	27	5,735,942	04-07-98	Litkowski et al.	
	28	5,766,611	06-16-98	Shimono et al.	
	29	5,827,882	10-27-98	Yu et al.	
	30	5,834,008	11-10-98	Greenspan et al.	
	31	5,874,101	02-23-99	Zhong et al.	
	32	5,891,233	04-06-99	Salonen et al.	
	33	5,891,470	04-06-99	Rinaldi et al.	
	34	5,972,384	10-26-99	Thut et al.	
	35	5,977,204	11-02-99	Boyan et al.	
ns	36	5,990,380	11-23-99	Marotta et al.	

Examiner
Signature

Humea H. Sheikh

Date
Considered

5-19-03

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² See attached Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

Sheet 2 of 3

Complete if Known

Control Number	09/818,466
Filing Date	March 27, 2001
First Named Inventor	Lee, Sean
Art Unit	1615
Examiner Name	Sheikh, H.
Attorney Docket Number	99866-9

U.S. PATENT DOCUMENTS

Examiner Initials *	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number - Kind Code ² (if known)			
<i>JS</i>	37	5,997,887	12-07-99	Ha et al.	
<i>JS</i>	38	6,010,713	01-04-00	Zhong et al.	
<i>JS</i>	39	6,086,374	07-11-00	Litkowski et al.	

FOREIGN PATENT DOCUMENTS

Examiner Initials *	Cite No. ¹	Foreign Patent Document			Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³	Number ⁴	Kind Code ⁵ (if known)				
<i>JS</i>	40	EP	0 261 593		03-30-88			
	41	WO	97/27148		07-31-97			
	42	WO	98/11853		03-26-98			
	43	WO	98/46164		10-22-98			
	44	WO	98/46170		10-22-98			
	45	WO	99/13852		03-25-99			
<i>JS</i>	46	WO	99/16423		04-08-99			

Examiner
Signature*Hameed H. Sheikh*Date
Considered

5-19-03

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² See attached Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

RECEIVED
FEB 19 2003
TECH CENTER 1600/2800

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449B/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Sheet 3 of 3

Complete if Known

Control Number	09/818,466
Filing Date	March 27, 2001
First Named Inventor	Lee, Sean
Group Art Unit	1615
Examiner Name	Sheikh, H.
Attorney Docket Number	99866-9

OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
ifs	47	OGINO, M. et al., "Compositional dependence of the formation of calcium phosphate films on bioglass", <u>Journal of Biomedical materials Research</u> , Vol. 14, pp. 55-64, 1980.	
	48	WILLIAMS, D., <u>Biocompatibility of Orthopedic Implants</u> , chapter 6, pp. 130-170, September 1, 1982.	
	49	HULBERT, S., "History of Bioceramics", <u>Ceramics International</u> , Vol. 8, pp. 131-140, 1982.	
	50	HENCH, L., et al., <u>Biomaterials: An Interfacial Approach</u> , pp. 145-148, Academic Press, 1982.	
	51	HENCH, L. et al., "Surface-Active Biomaterials", <u>Science</u> , Vol. 226, pp. 630-636, November 9, 1984.	
	52	GROSS, U. et al., "The Response of Bone to Surface-Active Glasses/Glass-Ceramics", <u>CRC Critical Reviews in Biocompatibility</u> , Vol. 4, No. 2, pp. 155-179, 1988.	
	53	GROSS, U. et al., "Surface Activities of Bioactive Glass, Aluminum Oxide, and Titanium in a Living Environment", <u>Annals New York Academy of Sciences</u> , pp. 211-226.	
	54	NIEMI, L. et al., "In vivo behaviour of glasses in the SiO ₂ -Na ₂ O-CaO-P ₂ O ₅ -Al ₂ O ₃ -B ₂ O ₃ -system", pp. 1-16.	
	55	HENCH, L., "Bioactive Glasses and Glass-Ceramics: A Perspective", <u>CRC Handbook of Bioactive Ceramics</u> , Vol. 1, pp. 7-23.	
	56	BIRCHALL, J., "The interrelationship between silicon and aluminum in the biological effects of aluminum", <u>Silicon and Aluminum in Biology</u> , pp. 50-67.	
	57	HENCH, L. et al., "Biological Applications of Bioactive Glasses", <u>Life Chemistry Reports</u> , Vol. 13, pp. 187-241, 1996.	
ifs	58	SCHEPERS, E. et al., "Bioactive Glass Particles of Narrow Size Range: A new material for the repair of bone defects", <u>Implant Dentistry</u> , Vol. 2, No. 3, pp. 151-156, 1993.	

Examiner
Signature

Humera H. Sheikh

Date
Considered

5-19-03